REMARKS

The present reply is in response to the Office Action mailed February 10, 2005, in which Claims 1, 4, 6, 7, 9~11, 14, 16, 17 and 19 were rejected and Claims 2, 3, 5, 8, 12, 13, 15 and 18 were objected. Applicants have thoroughly reviewed the outstanding Office Action including the Examiner's remarks and the references cited therein. The following remarks are believed to be fully responsive to the Office Action and are believed to render the claims at issue patentably distinguishable over the cited reference.

Rejection of Claims 1, 4, 7 and 9 under 35 U.S.C. 102(b)

The Examiner has rejected Claims 1, 4, 7 and 9 under 35 U.S.C. §102(b), as being anticipated by Seong (U.S. Patent No. 5,606,296).

Accordingly, Applicants respectfully request that the rejection be withdrawn.

> **"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference."** *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

Seong's invention is a pulse width modulation control circuit that includes a sawtooth oscillating means 100, a sawtooth controller 200 and a pulse width modulating means 300. The pulse width modulating means 300 includes a first error amplifier 301 for receiving an output voltage V_o and a reference voltage V_{oref} and a comparator 302 for receiving the output of the error amplifier 301 and the sawtooth voltage V_{TR} generated from the sawtooth oscillating means 100 to modulate a pulse width. The purpose of the Seong invention is to maintain the voltage

amplitude ΔV of the sawtooth wave so as to reach the system optimization, as shown in the figure 4A to 4C. In other words, the Seong reference is to reduce the change of the voltage amplitude.

In contrast to the purpose of maintaining the voltage amplitude ΔV of the Seong reference, the purpose of the claimed invention is to fix the frequency of the output PWM signal (page 2, line 21 to line 23) for providing a relatively high frequency, such as 10 kHz or more, to operate the fan motor 12 to avoid the noise. According to the present invention, a PWM buffer circuit 20 is arranged between the PWM signal generation unit 10 and the driving circuit 11 to transfer the PWM signal S1 to a PWM signal S2 with a fixed frequency that is determined by the PWM buffer circuit 20. In other words, according to the present invention, the PWM buffer circuit 20 receives a PWM signal and then modulates the frequency of the received PWM signal to a fixed frequency for driving a fan. Furthermore, the PWM buffer circuit 20 is not a PWM circuit. It is a buffer circuit for modulating the frequency of the received PWM signal to a fixed frequency.

Nowhere in Seong teaches or suggests using a modulation circuit to fix the frequency of the output PWM signal for driving a fan as in claims 1 and 10. Thus, the subject matter as recited in claims 1 and 10 would not be anticipated by Seong.

Rejection of Claims 6, 10-11, 14, 16, 17 and 19 under 35 U.S.C. 103(a)

The Examiner has rejected Claims 6, 10-11, 14, 16, 17 and 19 under 35 U.S.C. §103(a), as being unpatentable over Seong (U.S. Patent No. 5,606,296) in view of Hoffman (U.S. Patent No. 5,457,435).

In particular, the rejection is respectfully traversed on the basis that the combination of Seong and Hoffman does not teach the limitations of claim 10 of the present invention.

As described in the claim 10 of the present invention, the present invention is to use a PWM buffer circuit 20 to make the output PWM signal have a fixed frequency. This frequency is related to the PWM buffer circuit 20.

However, neither of the Seong reference and the Hoffman reference teaches the feature described above. Therefore, the combination of these two cited references also fails to teach the claimed invention.

Moreover, the invention purposes and the problems wanted to be resolved between the cited references and the present invention are totally different. Therefore, those skilled in the art would find it impossible to modify the cited references to achieve the claimed invention because no any modification suggestion is provided in the cited references.

Accordingly, Applicants respectfully submit that independent Claims 1 and 10 are allowable over the art of record and respectfully request the rejections under 35 U.S.C. §§ 102 (b) and 103(a) to be reconsidered and withdrawn. In addition, insofar claims 2~9 and 11~19 respectively depend from independent Claims 1 and 10 and add further limitations thereto, the rejections under 35 U.S.C. §§ 102 (b) and 103(a) of these Claims should be withdrawn as well.

Reconsideration and withdrawal of the rejections are respectfully requested.

CONCLUSION

It is believed that a full and complete response has been made to the Office Action, and that as such, the Examiner is respectfully requested to send the application to Issue.

In the event there are any matters remaining in this application, the Examiner is invited to contact Joe McKinney Muncy, Registration No. 32,334 at (703) 205-8000 in the Washington, D.C. area.

Pursuant to 37 C.F.R. §§ 1.17 and 1.136(a), Applicants respectfully petition for a one (1) month extension of time for filing a response in connection with the present application and the required fee of $120.00 is attached herewith.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§1.16 or 1.17; particularly, extension of time fees.

Dated: June 9, 2005

Respectfully submitted,

By _____

Joe McKinney Muncy
Registration No.: 32,334
BIRCH, STEWART, KOLASCH & BIRCH, LLP
8110 Gatehouse Rd
Suite 100 East
P.O. Box 747
Falls Church, Virginia 22040-0747
(703) 205-8000
Attorney for Applicant